

## **AMENDMENTS TO THE CLAIMS**

This listing of claims will replace all prior versions, and listings, of claims in the application:

### **Listing of Claims:**

- 1           1. (Currently amended) A method for performing time measurements  
2           during instrumentation-based profiling, comprising:  
3           receiving a code to be profiled;  
4           inserting profiling instrumentation code in the code;  
5           allowing a user to select at runtime the instrumented portions of the code  
6           to execute;  
7           executing the code including the instrumented portions of the code;  
8           measuring a time for executing instrumented portions of the code; and  
9           subtracting an overhead time for the profiling instrumentation code from  
10          the measured time to obtain the time for the instrumented portions of the code.
  
- 1           2. (Original) The method of claim 1, wherein the code includes platform-  
2           independent Java bytecodes.
  
- 1           3. (Original) The method of claim 1, wherein the overhead time is  
2           determined by executing the profiling instrumentation code without executing any  
3           instrumented code.
  
- 1           4. (Original) The method of claim 3, wherein the profiling instrumentation  
2           code is executed multiple times to determine an average value for the overhead  
3           time.

1           5. (Original) The method of claim 4, wherein the profiling instrumentation  
2 code includes method entry code that takes a first time measurement at the  
3 beginning of a method, and method exit code that takes a second time  
4 measurement at the end of the method, wherein the first and second time  
5 measurements are used to calculate an execution time for the method.

1           6. (Original) The method of claim 5, wherein determining the overhead  
2 time involves calculating an inner time  $t_I = x_2 + y_1$ , wherein  $y_1$  is the time between  
3 when the first time measurement is taken and when the method entry code is  
4 finished executing, and wherein  $x_2$  is the time between when the method exit code  
5 begins executing and when the second time measurement is taken.

1           7. (Original) The method of claim 6, wherein the time  $t_{exact}$  for executing  
2 instrumented portions of the code is calculated as  $t_{exact} = t_{meas} - t_I$ .

1           8. (Original) The method of claim 7, wherein if the method makes  $m$  calls  
2 to other methods, the time for executing instrumented portions of the code  
3  $t_{exact} = t_{meas} - t_I - mt_O$ , wherein the outer time,  $t_O = x_1 + y_2$ , wherein  $x_1$  is the time  
4 between when the method entry code begins executing and when the first time  
5 measurement is taken, and wherein  $y_2$  is the time between when the second time  
6 measurement is taken and when the method exit code is finished executing.

1           9. (Currently amended) A computer-readable storage medium storing  
2 instructions that when executed by a computer cause the computer to perform a  
3 method for performing time measurements during instrumentation-based  
4 profiling, wherein the computer-readable storage medium includes magnetic and  
5 optical storage devices, disk drives, magnetic tape, CDs (compact discs), and  
6 DVDs (digital versatile discs or digital video discs), the method comprising:

7           receiving a code to be profiled;  
8           inserting profiling instrumentation code in the code;  
9           allowing a user to select at runtime the instrumented portions of the code  
10          to execute;  
11          executing the code including the instrumented portions of the code;  
12          measuring a time for executing instrumented portions of the code; and  
13          subtracting an overhead time for the profiling instrumentation code from  
14          the measured time to obtain the time for the instrumented portions of the code.

1           10. (Original) The computer-readable storage medium of claim 9, wherein  
2          the code includes platform-independent Java bytecodes.

1           11. (Original) The computer-readable storage medium of claim 9, wherein  
2          the overhead time is determined by executing the profiling instrumentation code  
3          without executing any instrumented code.

1           12. (Original) The computer-readable storage medium of claim 11,  
2          wherein the profiling instrumentation code is executed multiple times to  
3          determine an average value for the overhead time.

1           13. (Original) The computer-readable storage medium of claim 12,  
2          wherein the profiling instrumentation code includes method entry code that takes  
3          a first time measurement at the beginning of a method, and method exit code that  
4          takes a second time measurement at the end of the method, wherein the first and  
5          second time measurements are used to calculate an execution time for the method.

1           14. (Original) The computer-readable storage medium of claim 13,  
2          wherein determining the overhead time involves calculating an inner time  $t_I = x_2 +$

3  $y_1$ , wherein  $y_1$  is the time between when the first time measurement is taken and  
4 when the method entry code is finished executing, and wherein  $x_2$  is the time  
5 between when the method exit code begins executing and when the second time  
6 measurement is taken.

1 15. (Original) The computer-readable storage medium of claim 14,  
2 wherein the time  $t_{exact}$  for executing instrumented portions of the code is  
3 calculated as  $t_{exact} = t_{meas} - t_I$ .

1 16. (Original) The computer-readable storage medium of claim 15,  
2 wherein if the method makes  $m$  calls to other methods, the time for executing  
3 instrumented portions of the code  $t_{exact} = t_{meas} - t_I - mt_O$ , wherein the outer time,  
4  $t_O = x_1 + y_2$ , wherein  $x_1$  is the time between when the method entry code begins  
5 executing and when the first time measurement is taken, and wherein  $y_2$  is the  
6 time between when the second time measurement is taken and when the method  
7 exit code is finished executing.

1 17-24 (Canceled).